

CLIMATOLOGICAL TABLES

DESCRIPTION OF TABLES AND CHARTS

(R. J. Martin)

Table 1 gives the data ordinarily needed for climatological studies for about 180 Weather Bureau stations making simultaneous observations at 8 a. m. and 8 p. m. daily, seventy-fifth meridian time, and for about 23 others making only one observation. The altitudes of the instruments above ground are also given.

Beginning with January 1, 1932, all wind movements and velocities published herein are corrected to true values by applying to the anemometer readings corrections determined by actual tests in wind tunnels and elsewhere.

Table 2 gives, for about 37 stations of the Canadian Meteorological Service, the means of pressure and temperature, total precipitation, depth of snowfall, and the respective departures from normal values except in the case of snowfall. The sea-level pressures have been computed according to the method described by Prof. F. H. Bigelow in the REVIEW of January 1902, 30: 13-16.

CHART I.—*Temperature departures*.—This chart presents the departures of the monthly mean surface temperatures from the monthly normals. The shaded portions of the chart indicate areas of positive departures and unshaded portions indicate areas of negative departures. Generalized lines connect places having approximately equal departures of like sign. This chart of monthly surface temperature departures in the United States was first published in the MONTHLY WEATHER REVIEW for July 1909, but smaller charts appear in W. B. Bulletin U for 1873 to June 1909, inclusive.

CHART II.—*Tracks of centers of ANTICYCLONES*; and

CHART III.—*Tracks of centers of CYCLONES*. The roman numerals show the chronological order of the centers. The figures within the circles show the days of the month, the location indicated being that at 8 a. m., seventy-fifth meridian time. Within each circle is also an entry of the last three figures of (chart II) the highest barometric reading, or (chart III) the lowest reading reported at or near the center at that time, in both cases as reduced to sea level and standard gravity. The intermediate 8 p. m. locations are indicated by dots. The inset map on chart II shows the departure of monthly mean pressure from normal and the inset on chart III shows the change in mean pressure from the preceding month.

The use of a new base map for charts II and III began with the January 1930 issue.

CHART IV.—*Percentage of clear sky between sunrise and sunset*.—The average cloudiness at each regular Weather Bureau station is determined by numerous personal

observations between sunrise and sunset. The difference between the observed cloudiness and 100 is assumed to represent the percentage of clear sky, and the values thus obtained are the basis of this chart. The chart does not relate to the night hours.

CHART V.—*Total precipitation*.—The scales of shading with appropriate lines show the distribution of the monthly precipitation according to reports from both regular and cooperative observers. The inset on this chart shows the departure of the monthly totals from the corresponding normals, as indicated by the reports from the regular stations.

CHART VI.—*Isobars at sea level, and isotherms at surface; prevailing winds*.—The pressures have been reduced to sea level and standard gravity by the method described by Prof. Frank H. Bigelow in the REVIEW for January 1902, 30: 13-16. The pressures have also been reduced to the mean of the 24 hours by the application of a suitable correction to the mean of 8 a. m. and 8 p. m. readings at stations taking two observations daily, and to the 8 a. m. or the 8 p. m. observation, at stations taking but a single observation.

The diurnal corrections so applied, except for stations established since 1901, will be found in the Annual Report of the Chief of the Weather Bureau, 1900-1901, volume 2, table 27, pages 140-164.

The sea-level temperatures are now omitted and average surface temperatures substituted. The isotherms cannot be drawn in such detail as might be desired, for data from only the regular Weather Bureau stations are used.

The prevailing wind directions are determined from hourly observations at almost all the stations. A few stations determine their prevailing directions from the daily or twice-daily observations only.

CHART VII.—*Wind roses for selected stations*.—This is a new chart, beginning with the REVIEW for January 1935, which gives wind roses for 28 selected stations. The roses are based on hourly percentages for the month.

CHART VIII.—*Total snowfall*.—This is based on the reports from regular and cooperative observers and shows the depth in inches of the snowfall during the month. In general, the depth is shown by lines connecting places of equal snowfall, but in special cases figures also are given. This chart is published only when the snowfall is sufficiently extensive to justify its preparation. The inset on this chart, when included, shows the depth of snow on the ground at 8 p. m. of the Monday nearest the end of the month.

CHARTS IX, X, etc.—*North Atlantic weather maps of particular days*.